

The Listing of Claims:

Claims 1-32. (Canceled).

33. (Currently Amended) A CXC chemokine receptor 4 (CXCR4) agonist, wherein the agonist is ~~H-[Ala⁹-Phe⁴¹]-SDF-(1-14)-LINKER-cyclo(Lys⁵⁸-Glu⁶⁰)-SDF-(55-67)-NH₂, having comprising the sequence:~~

[]
KPVLSYRAPFRFF-[LINKER]-LKWIQEYLEKALN-NH₂

(residue positions 1-14 linked to residue positions 19-31 of SEQ ID NO:[S]:208)

wherein, the LINKER is ~~of the formula C₁₋₄ (SEQ ID:213) or (CH₂)₁₋₂₀~~
comprises 4 natural amino acids.

34. (Currently Amended) A pharmaceutical composition ~~[[of]]~~ comprising the agonist of claim 33, [[of]] wherein the agonist comprises the formula:

[]
KPVLSYRAPFRFFGGGGLKWIQEYLEKALN-NH₂

(SEQ ID NO:57)

in a pharmaceutically acceptable carrier.

35. (Previously Presented) A composition of the formula:

[]
KPVLSYRAPFRFFGGGGLKWIQEYLEKALN-NH₂

(SEQ ID NO:132)

in a pharmaceutically acceptable carrier.

36. (New) An amino acid sequence having at least 95% homology to the agonist of claim 33 and having the function of binding to a CXCR4 receptor.

37. (New) A pharmaceutical composition comprising the amino acid sequence of claim 36.

38. (New) An amino acid sequence having at least 95% homology to the composition of claim 35 and having the function of binding to a CXCR4 receptor.